

### **REMARKS/ARGUMENTS**

The patent by Lee et al. teaches a nanocrystal based optical modulator which can be activated by light. Applicants' claim 20 has been amended to require programmable mask that is modulated electrically. The difference between an optically modulated and electrically modulated "shutter" is non-obvious. Further, in the patent by Lee, the modulator works at wavelength range 300 nm – 2  $\mu$ m. It is again not obvious to choose nanocrystals which work at wavelength in the lithographic wavelength, 193 nm and 248 nm in particular, which lies below their range. The choice of materials is entirely different.

The patent by Sarma et.al., uses sapphire substrate for its high electron mobility and transparency at visible wavelength. Their device structure is built on a glass substrate which is not transparent at UV wavelength. Their choice of sapphire is, therefore, never intended to be used in the UV wavelength. The choice of sapphire in claim 27 is for its transparency at lithographic wavelengths, especially at 248 nm and 193 nm. See claim 1.

### **Information Disclosure**

In accordance with Rule 97, the undersigned attorney submits the documents listed on the attached form PTO/SB/08a. These documents were recently cited in an International Search Report in a counterpart foreign application. A copy of the search report and each document other than U.S. patent documents is enclosed. The Examiner is requested to initial the attached form PTO-1449 and to return a copy as an indication that the listed documents have been considered and made of record in this case.

All outstanding issues have been addressed and this application is in condition for allowance. Should any minor issues remain outstanding, the Examiner should contact the

undersigned at the telephone number listed below so they can be resolved expeditiously without need of a further written action.

Respectfully submitted,

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